

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): August 6, 2024

INOZYME PHARMA, INC.

(Exact name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

001-39397
(Commission
File Number)

38-4024528
(IRS Employer
Identification No.)

321 Summer Street
Suite 400
Boston, Massachusetts
(Address of Principal Executive Offices)

02210
(Zip Code)

Registrant's Telephone Number, Including Area Code: (857) 330-4340

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, par value \$0.0001 per share	INZY	Nasdaq Global Select Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 8.01 Other Events.

On August 6, 2024, Inozyme Pharma, Inc. (the “Company”) filed with the Securities and Exchange Commission a prospectus supplement (the “Prospectus Supplement”) under the Company’s effective registration statement on Form S-3 (File No. 333-275364) to register the offer and sale of the shares that can be sold under the Company’s existing at-the-market offering program (“At-the-Market Offering Program”) for which Jefferies LLC acts as sales agent, which prospectus supplement supersedes and replaces the sales agreement prospectus, dated August 23, 2021. Through the date hereof, the Company has issued and sold 4,364,440 shares of common stock under the At-the-Market Offering Program for aggregate gross proceeds of approximately \$26.2 million. The Company may sell the remaining shares of common stock under the At-the-Market Offering Program for an aggregate offering price of up to approximately \$23.8 million.

Wilmer Cutler Pickering Hale and Dorr LLP, counsel to the Company, has issued a legal opinion relating to the shares of the Company’s common stock that may be issued pursuant to the At-the-Market Offering Program under the Prospectus Supplement. A copy of such legal opinion, including the consent included therein, is attached as Exhibit 5.1 hereto.

This Current Report on Form 8-K shall not constitute an offer to sell or solicitation of an offer to buy the shares of the Company’s common stock described herein, nor shall there be any sale of these securities in any state in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities law of such state or jurisdiction.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits:

<u>Exhibit</u>	<u>Description</u>
5.1	Opinion of Wilmer Cutler Pickering Hale and Dorr LLP
23.1	Consent of Wilmer Cutler Pickering Hale and Dorr LLP (included in Exhibit 5.1)
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

INOZYME PHARMA, INC.

Date: August 6, 2024

By: /s/ Douglas A. Treco
Name: Douglas A. Treco
Title: Chief Executive Officer

August 6, 2024

Inozyme Pharma, Inc.
321 Summer Street, Suite 400
Boston, Massachusetts 02210

Re: Prospectus Supplement to Registration Statement on Form S-3

Ladies and Gentlemen:

This opinion is furnished to you in connection with (i) the Registration Statement on Form S-3 (File No. 333-275364) (the “Registration Statement”) filed by Inozyme Pharma, Inc., a Delaware corporation (the “Registrant”), with the Securities and Exchange Commission (the “Commission”) under the Securities Act of 1933, as amended (the “Securities Act”), on November 7, 2023, for the purpose of registering with the Commission under the Securities Act, among other things, shares of common stock, \$0.0001 par value per share (the “Common Stock”), of the Registrant, all of which may be issued and sold by the Registrant from time to time on a delayed or continuous basis pursuant to Rule 415 under the Securities Act at an aggregate initial offering price not to exceed \$300,000,000, as set forth in the Registration Statement and the base prospectus contained therein (the “Base Prospectus”); and (ii) the prospectus supplement, dated August 6, 2024 (the “Prospectus Supplement” and, together with the Base Prospectus, the “Prospectus”), relating to the issuance and sale from time to time by the Registrant of shares of Common Stock with an aggregate offering price of up to \$23,750,000 (the “Shares”).

The Shares are to be issued and sold by the Registrant pursuant to an Open Market Sale AgreementSM, dated August 11, 2021 (the “Sales Agreement”), between the Registrant and Jefferies LLC. The Sales Agreement was filed with the Commission as Exhibit 1.2 to the Registration Statement on Form S-3 (File No. 333-258702) filed by the Registrant with the Commission on August 11, 2021. We are acting as counsel for the Registrant in connection with the issuance and sale by the Registrant of the Shares. We have examined a signed copy of the Registration Statement as filed with the Commission, including the exhibits thereto, and the Prospectus as filed with the Commission. We have also examined and relied upon the Sales Agreement, the minutes of meetings of the stockholders and the Board of Directors of the Registrant as provided to us by the Registrant, the Certificate of Incorporation and Bylaws of the Registrant, each as restated and/or amended to date, and such other documents as we have deemed necessary for purposes of rendering the opinion hereinafter set forth.

Wilmer Cutler Pickering Hale and Dorr LLP, 7 World Trade Center, 250 Greenwich Street, New York, New York 10007

Beijing Berlin Boston Brussels Denver Frankfurt London Los Angeles New York Palo Alto San Francisco Washington

In our examination of the foregoing documents, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as copies, the authenticity of the originals of such latter documents and the legal competence of all signatories to such documents.

We have relied as to certain matters on information obtained from public officials and officers of the Registrant, and we have assumed that (i) the Shares will be issued and sold in compliance with applicable federal and state securities laws and in the manner stated in the Registration Statement, the Prospectus and any applicable prospectus supplement; (ii) there will be sufficient shares of Common Stock authorized under the Certificate of Incorporation and not otherwise reserved for issuance; and (iii) at the time of the issuance and sale of the Shares, the Registrant will be validly existing as a corporation and in good standing under the laws of the State of Delaware.

We have assumed that there will not have occurred, prior to the date of issuance of the Shares, any change in law affecting the validity of such Shares and that at the time of the issuance and sale of the Shares, the Board of Directors of the Registrant (or any committee thereof acting pursuant to authority properly delegated to such committee by the Board of Directors) shall not have taken any action to rescind or otherwise reduce its prior authorization of the issuance of the Shares.

We express no opinion herein as to the laws of any state or jurisdiction other than the General Corporation Law of the State of Delaware and the federal laws of the United States of America.

Based upon and subject to the foregoing, we are of the opinion that the Shares have been duly authorized for issuance and, when issued and paid for in accordance with the terms and conditions of the Sales Agreement, the Shares will be validly issued, fully paid and nonassessable.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters. This opinion is based upon currently existing statutes, rules, regulations and judicial decisions, and we disclaim any obligation to advise you of any change in any of these sources of law or subsequent legal or factual developments which might affect any matters or opinions set forth herein.

We hereby consent to the filing of this opinion with the Commission as an exhibit to the Current Report on Form 8-K to be filed by the Registrant in connection with the issuance and sale of the Shares in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act and to the use of our name therein and in the Prospectus Supplement under the caption "Legal Matters." In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

Very truly yours,

By: /s/ WILMER CUTLER PICKERING HALE AND DORR LLP
WILMER CUTLER PICKERING HALE AND DORR LLP

Wilmer Cutler Pickering Hale and Dorr LLP, 7 World Trade Center, 250 Greenwich Street, New York, New York 10007

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